

# The Captive and Enterprise Risk Intelligence

*December 2018*

A substantial portion of a company's value is derived from the individual and collective experiences of its employees and partners. In the past, the best companies in the world would learn from their experiences and incorporate those learnings into operations manuals, safety manuals, quality control manuals, and training courses. In the late 1990's and early 2000's, the rise of enterprise software platforms effectively used workflows to replace or augment the expertise documented and housed within these written manuals. These platforms also reduced the need for training, as best practices were baked into enterprise software solutions. Even with this evolution from paper to platforms, companies still relied very heavily on the actual experiences housed within their employees' heads to navigate their enterprise into profitable territory.

The past several years have seen the beginning of yet another evolution in the way in which firms operate. The collection, organization, analysis and visualization of data is playing a much bigger role within all organizations. Further, this data is beginning to feed the new, rapidly growing machine learning and artificial intelligence segments of the technology market. These technologies are beginning to complement the experiences of employees to provide them with a much greater level of confidence around their day to day decisions. This new augmented decision-making model needs fuel to provide informed decisions. Companies need to start thinking of organizational structures and solutions that will maximize the capture of valuable decision-making data.

In this article of our captive series we propose that a captive insurance company could be an ideal

long-term vehicle to collect, organize and visualize enterprise risk related data. This would fuel more informed decision making within organizations in terms of, among other things, the tradeoff between keeping, mitigating, and transferring risk. A captive, once established, can become a means to create a consistent and systematic framework for capturing risk data. This data can be combined with other datasets developed externally or internally, like new technologies used to monitor activity on jobsites.

The insurance industry is founded on collecting data around contingent events, harnessing the power of the actuarial and data science community and determining the technical cost of risk. Traditional actuarial methods of measuring the cost of risk are centered around aggregating and analyzing data that is segmented into homogeneous groups such as line of coverage, geography, or for example, whether a company is building residential units, commercial buildings, or infrastructure. Our data science colleagues, however, look at data slightly differently, analyzing individual data points to identify meaningful rating variables. All of this requires 'clean' data. As the insurance industry continues to adopt more advanced analytics tools, ensuring that every field is accurate and/or complete is typically the most time-consuming and costly part of any data analysis project.

The insurance sector has long been responsible for helping companies make better decisions when it comes to managing the risks facing their organization. It really is all about understanding the risk and reward trade-off, and the tenets of strong enterprise risk management are as follows:

- Aligning risk appetite and strategy
- Reducing operational surprises and losses
- Ensuring robust and transparent risk management
- Strengthening decision making by anticipating operational risk management needs
- Embedding risk management across the organization
- Linking risk management information with operational performance and economic value creation.

Captive clients that are significantly data informed show that the strategic use of their data is tied to economic performance at the parent level. Early research shows that a company's ability to envision and execute many of the key enterprise risk management performance tenets listed above is correlated to company economic performance and shareholder value. The more mature a firm is in its ability to harness next generation analytics, the better their competitive position and financial returns.

A captive can be a foundational element of enterprise intelligence strategy through:

- **Trend Identification** – Use the natural ability of a captive to absorb losses (failure data) to spot trends before they become material to the organization. Standardization of cause of loss data capture can help ensure data is organized to expedite trend identification, which can inform the retain, mitigate, or transfer decision-making process.
- **Cost-Benefit of Risk Controls** – Firms will more easily be able to determine if the cost

of a risk control (for example, a new role within an organization, a new technology) is worth the benefit it will provide to the organization (using loss data captured as a basis for determining cost-benefit).

- **Total Cost of Risk Capture** – Once again a standardized approach to data capture will allow companies to more effectively determine their total cost of risk, down to their component parts like self-insurance costs, ceded insurance costs, claims, cost of risk administration, and costs in excess of insurance. This will help determine ideal pricing for bids as risk is sized and priced based on this data.
- **Monitoring Impact of Enterprise Changes** – By having a standardized approach to risk data capture, companies can clearly see frequency and severity trends over time and determine if key changes within the organization create more or less risk. Examples of such changes include implementation of new safety programs, shifts in type of work done, working in new geographies, and changes to vetting processes for counter-party risk assessment.
- **Insuring Previously Uninsurable Risk** – An all-encompassing data capture standardization could provide a path forward to cover more esoteric risks previously uninsurable. Such data capture could provide a profitable technical rate for new risk and could transform the ability to better manage project risks.
- **Decision Making Fuel for Machine Learning/ Artificial Intelligence** – As referenced above, new technologies are coming to market that can spot trends earlier and result in more informed decision making in a quicker timeframe.

In effect, next generation use of analytics will enable firms to pivot to become the “underwriter of choice,” able to identify and exploit efficient pricing and determine tradeoffs between risk retention and transfer on both an individual risk and risk portfolio basis.

Given its natural ability to capture exposure and loss data in a myriad of formats as well as house data analysis experience, a captive insurance company could become an engine for better decision-making. New decision-making technology will

need well-organized data to accelerate decisions and make them more effective. A captive could be the creator of that fuel to transport firms to an optimized decision-making state – one where employees and data are comingled more effectively to continuously grow enterprise value. New forms of risk capital are welcomed entrants to the risk transfer sector as risk modelling methods further advance. A captive provides an effective platform to access this burgeoning capacity.

It is really all about competitive advantage.

# Contacts

**Ward Ching**

Managing Director  
Captive & Insurance Management  
Aon Global Risk Consulting  
t +1.415.486.7430  
ward.ching@aon.com

**Brenda Reddick**

Director and Actuary  
Aon Global Risk Consulting  
t + 1.952.807.0684  
brenda.reddick@aon.com

**David Bowcott**

Global Director – Growth, Innovation & Insight  
Aon Global Construction and Infrastructure Group  
t +1.416.868.5909  
david.bowcott@aon.ca